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ZEWDU, MELESS NMN

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2617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.



### DETAILED ACTION

1. This action is in response to the communication filed on 1/31/07.
2. Claims 5, 14, 16-21, 24-43 and 45 have been canceled.
3. Claims 59 and 60 have been added.
4. Claims 1-4, 6-13, 15, 22-23, 44 and 46-60 are pending in this action.
5. This action is final.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4, 7, 12, 13, 16-20, 24-28, 32-34, 37-38, 40, 44-47, 50-51 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (US 5,940,762) in views of Kozdon et al. (Kozdon) (EP 0 695 104 A2) and Acharya et al. (Acharya) (US 5,974,036).

**Regarding claim 1:** Lee discloses a method for performing handover of a mobile station communicating in a first call via a first network to communication in a second call via a second network (see abstract; figs. 2A-2D; col. 7, lines 19-67), comprising:

generating a request for handover (abstract; col. 5, lines 49-65; col. 6, lines 33-59).

establishing the second call between the first network and the mobile station via the second network the second call being originated by the mobile station (see col. 4, lines 17-40; col. 18, line 60-col. 19, line 56; col. 7, lines 19-67).

transferring data communication between the mobile station and the first network from the first call to the second call (see abstract; col. 7, lines 40-67). But, Lee does not explicitly teach about establishing the/a second call between the first network and the mobile station via the second network, as claimed by applicant. However, in a related field of endeavor, Kozdon teaches about a mobile telephone connection transfer technique wherein, upon detecting that signal strength of an active connection has fallen below a predetermined threshold, a mobile handset sends a request to a first mobile telephone system to set up an alternative connection from the first mobile telephone system to the mobile handset through a second mobile telephone system, and wherein the active connection is transferred to the alternate connection/call (see entire document, particularly abstract; col. 4, lines 12-39; col. 9, lines 8-22). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of Lee with that of Kozdon for the advantage of transferring an active call/connection from one telephone system to another. But, the above references do not explicitly teach about **the second call being originated by the mobile station** and **the first network transmitting data to the mobile station data indicating an identification for the handover**, as claimed by applicant. However, in a

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related field of endeavor, Acharya teaches about a handoff-control technique for inter-switch handoff arrangement (see abstract; col. 4, line 62-col. 5, line 5) wherein a mobile station establishes a second call/path/link with a first network via alternate route and alternate switch (see fig. 4, broken lines and MT, BS1-BS2, SW1-SW2) and wherein the first network transmits data to the mobile station, data indicating an identification for the handover (see 5, line 6-51, particularly lines 23-38). Although the Acharya's reference is within an ATM technology, it provides a teaching in the area of link re-routing that can be utilized to enhance and expand the existing handoff technique. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to further modify the above references for the advantage of changing the link or connection path of a mobile station without necessarily changing the originating network (see col. 2, lines 52-59).

**Regarding claim 2:** Lee teaches a step of releasing the first call after data communication between the mobile station and the first network has been transferred from the first call to the second call (see col. 8, lines 59-62). Terminating a call properly transferred is same as releasing the call.

**Regarding claim 4:** Lee teaches a method wherein the first network generates the request for handover (see col. 6, lines 33-59).

**Regarding claim 7:** Lee teaches a method wherein the first network originates the second call (see col. 6, lines 33-59).

**As per claim 12:** Lee teaches a method wherein the first and second networks are cellular telephone networks (see abstract; col. 4, lines 18-40).

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**As per claim 13:** Lee teaches a method wherein the mobile station is capable of communicating by radio with the first and second networks (see abstract; col. 5, lines 13-30; col. 6, lines 34-59).

**As per claim 44:** the features of claim 44 are similar to the features of claim 1, except the feature – receive from the first network data indicating an identification of the handover operation, which is taught by Kozdon (see col. 4, lines 2-39). Therefore, claim 44 is rejected on the same ground and motivation as claim 1.

**As per claim 46:** the feature of claim 46 is similar to the feature of claim 40. Hence, claim 46 is rejected on the same ground and motivation as claim 40.

**As per claim 47:** the feature of claim 47 is similar to the feature of claim 2. Hence, claim 47 is rejected on the same ground and motivation as claim 2.

**As per claim 50:** Lee discloses a network element performing handover a mobile station from a first call via first network second network (see figs. 2B-2C, BSCs; summary), the network element forming part first network and being arranged to:

communicate data with the mobile station via the first network in the first call (see col. 2, lines 61-65; col. 3, lines 19-24). The multiple base stations include the first.

determine that a handover is required (see abstract; col. 6, lines 33-59; col. 11, lines 26-52). In the prior art, inter-system handover is made and the requirement for it comes from the movement of the mobile unit.

transmit identification mobile station data indicating of the handover operation (see col. 8, lines 29-58; col. 10, lines 24-57; col. 11, line 27-col. 12, line 65).

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Furthermore, it should be noted in the prior art, that handover operation is made because it was identified/indicated and recognized as such by participating entities.

establish the second call with the mobile station from the first call to the second call (see col. 11, lines 27-52; col. 17, lines 56-65).

transfer data communication with the mobile station from the first call to the second call (see abstract; col. 1, lines 5-10; col. 3, lines 51-67; col. 8, lines 1-14). But, Lee does not explicitly teach about establishing the/a second call between the first network and the mobile station via the second network, as claimed by applicant. However, in a related field of endeavor, Kozdon teaches about a mobile telephone connection transfer technique wherein, upon detecting that signal strength of an active connection has fallen below a predetermined threshold, a mobile handset sends a request to a first mobile telephone system to set up an alternative connection from the first mobile telephone system to the mobile handset through a second mobile telephone system, and wherein the active connection is transferred to the alternate connection/call (see entire document, particularly abstract; col. 4, lines 12-39; col. 9, lines 8-22).

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of Lee with that of Kozdon for the advantage of transferring an active call/connection from one telephone system to another.

**As per claim 51:** Lee teaches a network element, wherein the network element is arranged to receive from the second network data indicating an identification of the handover operation (see abstract). Lee's system is bi-directional intersystem soft handoff.

**As per claim 53:** Kozdon teaches a method comprising the second network being a different network from the first network (see abstract).

**As per claim 54:** the features of claim 53 are similar to the features of claim 1, except claim 53 is directed to means for performing the steps of claim 1. Hence, claim 53 is rejected on the same ground and motivation as claim 1 since the method requires a means to be performed.

**As per claim 55:** the features of claim 55 are similar to the features of claim 1, except claim 55 is directed to a network/system for performing the method steps of claim 1. Hence, since the system/network is required to perform method steps of claim 1, claim 55 is rejected on the same ground and motivation as claim 1.

Claims 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee as applied to claim 1 above, and further in view of Duran et al. (Duran) (US 6,115,608).

**Regarding claim 3:** but, Lee does not explicitly teach about a method wherein a mobile station generates a request for handover, as claimed by applicant. However, in a related field of endeavor, -- "Intersystem Handover Method and Apparatus" --, Duran teaches that a mobile station is capable of initiating intersystem handover/handoff (see col. 3, lines 33-53; col. 7, lines 45-51; col. 10, lines 18-67). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of Lee with that of Duran for the advantage of the mobile station to monitor/detect and store the signal quality of nearby stations to make a decision as to when and to which BTS to handover.



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Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee as applied to claim 1 above, and further in view of Byrne et al. (Byrne) (US 5,659,598).

**As per claim 9:** Lee does not explicitly teach about a method wherein the geographical coverage of the second network is greater than that of the first network, as claimed by applicant. However, in a related field of endeavor, Byrne teaches about a handover procedure from a cordless base station (cordless telephone system) to a mobile radio-telephone system, wherein the second system/network covers greater geographical area than that of the first (see abstract). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Lee's reference with the teaching of Byrne for the advantage of enabling users to handover from a cordless telephone system (small area) to a mobile radio system (larger area).

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee as applied to claim 1 above, and further in view of Fernandez et al. (Fernandez) (US 2001/0022615 A1).

**As per claim 10:** but, Lee does not explicitly teach about a method wherein the first network is an IMT-200 network, as claimed by applicant. However, in a related field of endeavor, Fernandez teaches that IMT-2000 is a standard air interface for mobile/wireless radio communication equipment, like cellular (see page 4, paragraph 0042). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to make a wireless/mobile radio equipment/system IMT-2000 air interface enabled since it is a standard to be met by any entity requiring the service provided by the standard.

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Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee as applied to claim 1 above, and further in view of Menich et al. (Menich) (US 6,449,305 B1).

**As per claim 11:** Lee does not explicitly teach/disclose about a method wherein the second network is a PDC network, as claimed by applicant. However, in a related field of endeavor, Menich teaches about a handoff technique between different networks that include CDMA, AMPS and PDC (see col. 4, line 65-col. 5, line 10). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Lee's reference with the teaching of Menich for the advantage of providing mobile stations handoff services between networks that employ different protocols (see col. 35-48).

***Allowable Subject Matter***

Claim 15 is allowed.

The following is an examiner's statement of reasons for allowance:

**As per claim 15:** claim 15 is directed to the general area of handoff. The prior art of record does not teach or fairly suggest the techniques of handoff as recited in claim 15.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Claims 6, 8, 22-23, 48-49 and 52, 56-58 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Applicant's arguments filed 1/31/07 have been fully considered but they are not persuasive. Arguments and responses are provided below.

**Argument :** with regard to claims 1, 44 and 50, applicant argues by saying the combination of references applied does not disclose or suggest – a second call originating by the mobile station and that the first network transmits data to the mobile station “indicating an identification for the handover”.

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**Response I:** examiner respectfully disagrees with the argument. In that, in Acharya's reference, BS1 (first network) sends a HO\_START message to the mobile terminal through a wireless control channel (see col. 5, lines 23-26). One of ordinary skill in the art would understand that a HO\_START message obviously could indicate a handover. Furthermore, Acharya also, teaches that a migrating mobile terminal listens/communicates signals from both base stations (old and new or (current BS and target BS), one of which could be a second call. Examiner also notes applicant's assertion that the specification describes "identifier" as being "handover number assigned by the network NW1 to this handover operation". It is respectfully submitted that this argument is based on a feature that was not claimed in a manner as being argued. Even if one agrees with the argument that the "identifier" should be a "number", there will be a requirement of showing criticality as to why it has to be so. Because, a handover can be identified by a designation other than a number. Thus, examiner did not find the argument convincing.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meless N. Zewdu whose telephone number is (571) 272-7873. The examiner can normally be reached on 8:30 am to 5:00 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Banks-Harold, Marsha can be reached on (571) 272-7905. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any inquiry of a general nature relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

Meless Zewdu

A handwritten signature in cursive script, appearing to read "Zewdu Meless".

Examiner

05 April 2007.